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# An evaluation of elementary and music teacher candidates' perceptions of professional self-efficacy: the cases of Pamukkale and Adnan Menderes Universities

Ceren Saygi<sup>a</sup>\*, Fatma Susar Kirmizi<sup>b</sup>

<sup>a</sup>Faculty of Education, Department of Primary Education, Pamukkale University, Denizli, 20070, Turkey

<sup>b</sup>Faculty of Education, Department of Music Education, Adnan Menderes University, Aydin, 09010, Turkey

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## Abstract

Teacher candidates trained to be teachers in education faculties acquire certain academic skills and affective characteristics, which is important for the quality of their future teaching. Perception of self-efficacy that can be briefly defined as “professional confidence” is one of the affective characteristics which shapes teacher candidates’ success. The Aim of the Study: The aim of this study is to evaluate professional self-efficacy perceptions of elementary and music teacher candidates studying in education faculties at Pamukkale and Adnan Menderes Universities in comparison. Method of the Study: In this study, survey method was used to identify students’ professional self-efficacy levels as is, gather quantitative data, and produce statistics relevant to the issue. The population of the study is the teacher candidates studying their 4<sup>th</sup> year in Elementary and Music Education Departments of the Education Faculties at Denizli Pamukkale and Aydin Adnan Menderes Universities. In the study conducted with 167 students (elementary education=132; music education=35) from Pamukkale University and 144 students (elementary education=95; music education=28) from Adnan Menderes University an inventory was administered to 290 students in total. In this study, “Teacher Candidates Self-Efficacy Inventory” developed by Kahyaoglu and Yangin (2007) was used to identify the students’ perceptions. In the study, self-efficacy inventory was administered to each student. Students’ perceptions were identified and evaluated. The data gathered from the inventory was analyzed and mean scores, standard deviations and t-test scores were calculated with SPSS and EXCEL. The results of the study based on data analysis are as follows: Teacher candidates’ self-efficacy perceptions do not differ according to gender, university, major and schooling shift (day or evening) variables. However, a meaningful difference was found between music and elementary teacher candidates. This difference can be attributed to that music students study at a department which requires certain abilities.

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*Keywords:* Self-efficacy expectation, self-efficacy inventory, elementary teacher candidates, music teacher candidates.

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## 1. Introduction

Knowledge is an important value for developed and developing societies. Teachers presenting knowledge to students need to have some characteristics to carry out the teaching process in an appropriate and effective way. Academic skills and affective characteristics teacher candidates acquire during their undergraduate studies are of great importance in terms of the quality of their future teaching. Self-efficacy is an affective characteristic shaping their success. It can be defined as “one’s beliefs of his capacity to organize and execute actions required to show a certain performance”. (Bandura, cited in Senemoğlu, 2001: 235). “Knowledge, skills and behaviors teacher

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\* Ceren Saygi

E-mail address: [cerensaygi2005@yahoo.com](mailto:cerensaygi2005@yahoo.com)

candidates are aimed to acquire are provided through subject area courses related to teaching profession and practicum activities which will be included in programs. The theoretical knowledge should be supported with the applications. Knowing a subject is not necessarily enough to be able to teach it” (Derman, 2007). There is no doubt that individuals’ lives are influenced by many teachers from elementary school to undergraduate education. In the first years of their school life, it is the elementary teachers who guide them in their studies and teach the very basics. Elementary teachers are influential in one’s personality, affecting his future, fostering his development in a rich and stimulating environment (Senemoğlu, 2011). It is quite important for elementary teacher candidates to feel competent and have the skills to implement the theoretical knowledge they learned (Çevik, 2011). Besides elementary teachers, music teachers also have an important place in individuals’ lives. They are influential in introducing students with art and forming listening habits in general, and in particular choosing the talented ones and guiding them. It is important for both elementary and music teachers to have a certain background in their profession and self-confidence to be able to educate individuals equipped with a qualified education. There have been a number of studies investigating teachers’ perceptions of self-efficacy.

Demirtaş et al.’s study (2011) with teacher candidates investigated their perceptions of self-efficacy according to some variables and also aimed to identify the relationship between self-efficacy perceptions and attitudes. The results of the study show that the students’ self-efficacy perceptions differed meaningfully according to gender and program. However, their attitudes towards the profession did not show any meaningful difference. Besides, a weak positive coloration was found between students’ perceptions of self-efficacy and attitudes towards profession. Kahyaoğlu and Yangın (2007) examined self-efficacy of teacher candidates in the primary education department related to teaching profession in terms of gender, program, type of high school graduated, and class year. The study was conducted with 330 teacher candidates in Siirt Faculty of Education at Dicle University. The results show that teacher candidates studying science education had higher self-efficacy related to teaching profession compared to candidates from other departments. In their study, Gömleksi et al. (2010) aimed to identify elementary teachers’ self-efficacy in science and technology courses. Conducted with 172 teachers teaching 4<sup>th</sup> and 5<sup>th</sup> graders in Elazığ, the study found that the teachers felt themselves competent in teaching science and technology courses, but had some difficulties in implementation. In his study with teacher candidates studying English language teaching at Mugla University, Baykara (2010) tried to identify whether there was a meaningful difference between self-efficacy in teaching and meta-cognitive learning strategies. In addition, he examined whether there was a difference between teacher candidates’ perceptions of self-efficacy and meta-cognitive learning strategies according to gender and class year. The results of the study conducted with 172 participants revealed that teacher candidates’ self-efficacy perception in teaching was at a satisfactory level. Besides, there was a meaningful difference between self-efficacy perceptions in teaching and meta-cognitive learning strategies.

The aim of this study is to evaluate elementary and music teacher candidates’ perceptions of professional self-efficacy. The study addresses the following research question: Do the teacher candidates’ perceptions of professional self-efficacy differ according to their (a) gender, (b) major, (c) university, and (d) schooling shift (day or night)?

## **2. Method**

Survey method being one of the descriptive research models was used in the study. In this model based on providing detailed information related to situation, participant groups’ opinions are identified (Karakaya, 2011; Ekiz, 2009).

### *1.1. Population and Sample*

The study was conducted at Pamukkale and Adnan Menderes Universities in the fall term of 2011-2012 academic year. The population of the study was the student teachers studying their 4<sup>th</sup> year in elementary and music education departments of education faculties at these universities. The inventory administered to 290 students (191 female, 99 male) was evaluated. 167 students from Pamukkale University (elementary education=132; music education=35) and 144 students from Adnan Menderes University (elementary education=95; music education=28) participated in the study.

### 1.1.1. Data Gathering Tool

In the study, “Teacher Candidate Self-Efficacy Inventory” developed by Kahyaoğlu and Yangın (2007) was used. It was prepared in Siirt Faculty of Education at Dicle University. The primary data for their study was gathered through a survey developed to identify student teachers’ self-efficacy related to the teaching profession. The items in the survey were selected among questions prepared as a result of the literature review in the field. Firstly, the survey consisting of 44 items was piloted on 330 teacher candidates. The data was tested for reliability in SPSS. The reliability coefficient (Cronbach Alpha) of the survey was calculated as .89. Then, according to the factor analysis results, some items were reorganized and prepared for administration. The scale intervals were calculated with a formula (range / number of groups) and it provides the following options: I’m not able 1.00-1.79, I’m somewhat able 1.80-2.59, I’m moderately able 2.60-3.39, I’m very able 3.40-4.19, I’m completely able 4.20-5.00. According to the results of their study, the Alpha reliability coefficient was found as .8965. In data analysis, mean scores, standard deviations and t-test scores were used.

## 3. Results

For the purposes of the research question, t-test analysis was used to determine whether teacher candidates’ perceptions of professional self-efficacy differ according to gender. The results of the analysis are shown in Table 1.

Table 1. Comparison of Teacher Candidates’ Perceptions of Professional Self-Efficacy According to Gender

Groups	n	$\bar{X}$	Ss	Sd	t	Significance Test
Female	191	159,20	21,68	288	,156	,876
Male	99	158,78	21,36			P>0,05 Insignificant

In Table 1, comparison of groups in terms of gender is given. Female and male students’ perceptions of professional self-efficacy do not show a meaningful difference, [ $t_{(56)}=,156$ ,  $p>0,05$ ]. Based on the results, it can be said that both groups had similar perceptions. In his study, Derman (2010) aims to identify chemistry teacher candidates’ self-efficacy. The results of his study conducted with 331 students studying their 4<sup>th</sup> and 5<sup>th</sup> year reveal a meaningful difference in terms of gender. This result has also been supported by some other studies (Baykara, 2010; Kahyaoğlu & Yangın, 2007; Çetinkaya, 2007).

Whether teacher candidates’ perceptions differ meaningfully according to major was examined and the results of the analysis are shown in Table 2.

Table 2. Comparison of Teacher Candidates’ Perceptions of Professional Self-Efficacy According to Major

Groups	n	$\bar{X}$	Ss	Sd	t	Significance Test
Elementary Ed.	227	157,48	19,69	288	-2,39	,01
Music Ed.	63	164,76	26,57			P<0,05 Significant

As can be seen in Table 2, a meaningful difference was found between elementary and music teacher candidates’ perceptions of professional self-efficacy according to major, [ $t_{(288)}=-2,39$ ,  $p<0,05$ ]. The difference showing that music teacher candidates had higher self-efficacy can be explained by various reasons. Students of music education department play many instruments requiring a particular talent and it may have affected their self-efficacy related to the teaching profession.

It was also examined whether teacher candidates’ perceptions of self-efficacy differ according to the universities they study at. Results of the analysis on the university variable are given in Table 3.

Table 3. Comparison of Teacher Candidates’ Perceptions of Professional Self-Efficacy According to Universities

Groups	n	$\bar{X}$	Ss	Sd	t	Significance Test
Adnan Menderes Uni.	123	156,55	21,56	288	-1,70	,08
Pamukkale Uni.	167	160,91	21,40			P>0,05 Insignificant

The table shows that there is no meaningful difference between the groups according to the university variable, [ $t_{(288)}=-1,70, p>0,05$ ]. Students studying at Adnan Menderes and Pamukkale Universities have similar perceptions of self-efficacy related to the teaching profession. However, It is interesting that the students at Pamukkale University had higher mean scores (160,91). In this sense, one can say that both universities have similar applications in teacher training.

In order to determine whether teacher candidates' perceptions of self-efficacy in terms of schooling shift (day or evening) have a difference, t-test was used with the data. Results of the analysis are shown in Table 4.

**Table 4. Comparison of Teacher Candidates' Perceptions of Professional Self-Efficacy According to Schooling Shift**

Group	n	$\bar{X}$	Ss	Sd	t	Significance
Day Teach.	178	160,06	21,92	288	,99	,320
Evening Teach.	112	157,47	20,91			P>0,05 Insignificant

In Table 4, it can be seen that there is no meaningful difference between the students attending their courses during the day teaching and in the evening teaching (i.e. two different shifts of the same program) related to their perception of professional self-efficacy, [ $t_{(288)}=0,99, p>0,05$ ]. Students in these shifts (day and evening) had similar perceptions. In fact, it can be interpreted positively that the two shifts have comparable trainings. This result has also been supported by the previous studies.

#### 4. Discussion and Suggestions

According to the results of the study, teacher candidates' perceptions of self-efficacy do not have a difference in terms of gender. All the students, female or male, have similar self-efficacy perceptions. Recent technological and social changes have revealed a context in which there is no clear-cut distinction between women's and men's role and status in society. This may have reflected to the results obtained from the current study. It can be interpreted that gender variable does not have an important role in self-efficacy perceptions. In his study, Derman (2010) concludes that gender is not a significant variable in professional self-efficacy perception. These results also support other studies (Baykara, 2010; Kahyaoglu & Yangin, 2007; Çetinkaya, 2007). According to the current study, teacher candidates' perceptions of professional self-efficacy do not differ meaningfully in terms of major. Music teachers have higher self-efficacy than elementary teachers. This difference can be explained by that music teachers study in a field which requires a particular talent and give more importance to their qualifications. Additionally, their instrument training and increasing public interest in the field recently, experience in being in front of large crowds by giving concerts with chorus or solo concerts may have affected their perceptions of professional self-efficacy. Students from both universities have similar levels of self-efficacy. However, it is interesting that students at Pamukkale University have higher mean scores. The results of the study show that schooling shift (day or evening) is not a variable affecting students' perceptions of self-efficacy. Students attending courses during the day and in the evening have similar perceptions. In this sense, it can be said that students in both shifts take comparable trainings and have the same self-efficacy. In the light of the results obtained from the study, it can be suggested that elementary education departments should give more importance to fostering students' self-efficacy. For example, incorporating active learning applications and creative drama activities which are found to be effective by many studies into the teacher training program may help elementary teachers improve their self-efficacy. On the other hand, teaching should not be perceived as a profession more suitable for women. Furthermore, education faculties should develop specific projects to share their experiences with each other.

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